

REMARKS

A final Office Action was mailed on February 3, 2003. Applicants mailed a Response to the Office Action on May 5, 2003. An Advisory Action was mailed on May 21, 2003.

Claims 3 – 9 and 12 – 24 are currently pending in the application. Applicants amend claims 3, 15, 17, 18 and 24, and add new claims 25, 26. No new matter is introduced. Support may be found, for example in Applicants' FIGs. 10 – 13 and the accompanying description in Applicants' specification.

ALLOWED CLAIMS

Applicants thank the Examiner for indicating that claims 3 – 9 are currently allowed. Applicants make a clarifying amendment to claim 3, and respectfully submit that claims 3 – 9 remain allowable.

ALLOWED CLAIMS

Applicants thank the Examiner for indicating that claims 12, 13, 15 and 19 - 23 are objected to as each being dependent on one of rejected base claims 17 and 24, but that each would be allowable if rewritten in independent form including all of the limitations of its associate base claim and any intervening claims. Applicants amend claims 15, 17 and 24 to further clarify the nature of their invention. As Applicants submit that amended claims 17 and 24 are currently allowable for the reasons cited below, and claims 12, 13, 15 and 19 – 23 each depend from one of allowable claims 17 and 24, Applicants' respectfully submit that claims 12, 13, 15 and 19 – 23 are allowable for at least this reason, and respectfully request that this objection be withdrawn.

REJECTION UNDER 35 U.S.C. § 102

Claims 16 - 18 and 24 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,400,566 to Ootori and by U.S. Patent No. 6,205,027 to Nakajima. Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ootori. Claims 17 and 24 are also rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,411,522 to Frank et al. Applicants amend claims 17 and 24 to further clarify the nature of their invention, and respectfully traverse these rejections.

Independent claims 24 and 17 disclose circuit substrate unit comprising first and second circuit substrates, a heat sink member and an electromagnetic shield member, wherein the heat sink member and the electromagnetic substrate member are sandwiched between the first and second circuit substrates. In addition, the second circuit substrate includes a circuit element serving as a heat source, and the heat sink member includes a plurality of frustoconically-shaped protruding portions, and circuit element contacts with said heat sink member via at least one of the plurality of frustoconically-shaped protruding portions provided on the plane facing the second circuit substrate.

Ootori discloses an electronic device with heat generating and heat absorbing parts, including a substrate unit for mounting a circuit element and at least one heat sink member 52, arranged between adjacent substrate units. Nakajima discloses a structure and method for mounting a multi-chip circuit module in a hand-held computer. Frank discloses an integrated computer module with an EMI shielding plate. However, unlike Applicants' claimed invention of claims 17 and 24, none of Ootori, Nakajima and Frank disclose or otherwise suggest a heat sink member having a plurality of frustoconically-shaped protruding portions for contacting a circuit element with the heat sink member via at least one of the plurality of frustoconically-shaped protruding portions. Applicants' frustoconically-shaped members provide a flat contact

surface for making a thermally-efficient contact with the circuit element, and substantial surface area for effective heat radiation.

Accordingly, Applicants respectfully submit that independent claims 17 and 24 are anticipated by none of Ootori, Nakajima and Frank, and are therefore allowable. As claims 14, 16 and 18 respectively depend from allowable claims 24 and 17, Applicants respectfully submit that claims 14, 16 and 18 are also allowable for at least this reason. In addition, Applicants respectfully submit that the hood portion of claim 18 is disclosed by none of Ootori, Nakajima and Frank, and is also allowable for this reason.

CONCLUSION

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 3 – 9 and 12 – 24, consisting of independent claims 3, 17, and 24 and the claims dependent therefrom, is in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,



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